

66 ARTIFACTS FROM
PERU AND EASTER
ISLAND

WESTWARD, NO! THE PEOPLING OF THE PACIFIC

The balsa-wood raft floated over the top of the wave then dropped between swells and rose again. Explorer and archaeologist Thor Heyerdahl stood at the bow watching the sunset. *Kon-Tiki's* sail strained with the westerly trade winds. Was Heyerdahl scared when he looked into the heaving Pacific Ocean? Did those nine balsa logs lashed together with hemp rope appear puny in the embrace of all that water power? Did the cabin built in the middle, framed with bamboo canes, sided in woven reeds and roofed with overlapping banana leaves feel flimsy when the spray shot overhead? Heyerdahl must have been very determined to prove his point to risk his life and the lives of his crew of five. He would show the world. He would prove that it was possible that ancient Peruvians had courageously cast off into the Pacific Ocean more than 1,000 years ago and settled Polynesia.

Oh, experienced sailors had warned him. It will sink, they said. The balsa will soak up water like a sponge, then sink like a rock. The ropes will fray and snap under the strain the first week. But Thor Heyerdahl discovered something ancient seafarers must have known about seagoing rafts. He wrote an entry in his journal that would later appear in his book *Kon-Tiki*: "The round logs astern let the water pass as if through prongs of a fork. The advantage of a raft was obviously this: the more leaks the better—through the gaps in our floor the water ran out, but never in."

He'd been warned by an experienced explorer and scholar that "the task of science

is investigation pure and simple. Not to try and prove this or that." But Heyerdahl didn't listen to that warning any more than he listened to the warnings about his raft. He *would* prove it was possible to raft westward to Polynesia from South America.

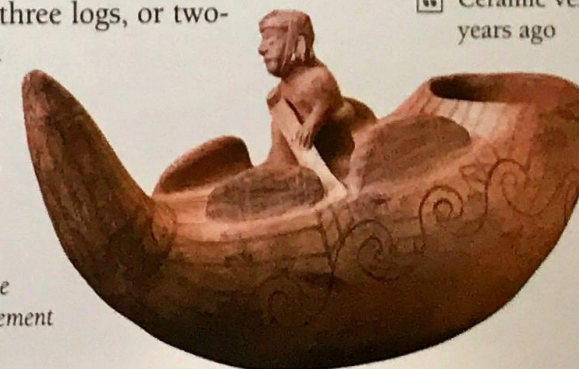
The scholar had argued, "none of the peoples of South America got over to the islands in the Pacific. Do you know why? The answer is simple enough. They couldn't have gotten there. They had no boats!"

Heyerdahl answered, "They had rafts. . . . You know, balsa-wood rafts."

Days had turned to weeks aboard the *Kon-Tiki*. Heyerdahl wrote in his journal, "It was easy to see that the balsa logs absorbed water. . . . I broke off a piece of the sodden wood and threw it over-board. It sank quietly beneath the surface and slowly vanished down into the depths." Would they make it to Polynesia? Had the ancient Peruvians? Heyerdahl admitted to the superior sailing abilities of the Polynesians. He knew their double canoes were sturdy yet nimble. Even their smaller canoes could carry 18,000 pounds. Families could travel from island to island in boats that were loaded with caged livestock—pigs and dogs and chickens and rats. Heyerdahl's Peruvian balsa raft was clumsy and impossible to steer in any direction other than with the wind.

Scholars would later discredit Heyerdahl's journey by pointing out that prehistoric Peruvians didn't use sails—they used paddles. Heyerdahl used sails. And the drawings and carvings of ancient South American watercraft showed rafts with only three logs, or two-person rafts made of bundled reeds, or inflated sealskin rafts—none as large as nine lashed logs—and none with

66 Ceramic vessel, Peru, 1,600 years ago



A man paddles a raft in the form of a supernatural fish. This pottery figurine found in Peru was a symbol of achievement that was buried with its owner.

The *Kon-Tiki* raft was made out of balsa wood. Thor Heyerdahl and his crew sailed this raft from Peru to the island of Raroia in Polynesia, a trip that took 101 days.



Stowaway

Thor Heyerdahl may not have deliberately brought animals with him, as the ancient immigrants must have, but it appears there was one stowaway. Heyerdahl writes in Kon-Tiki,

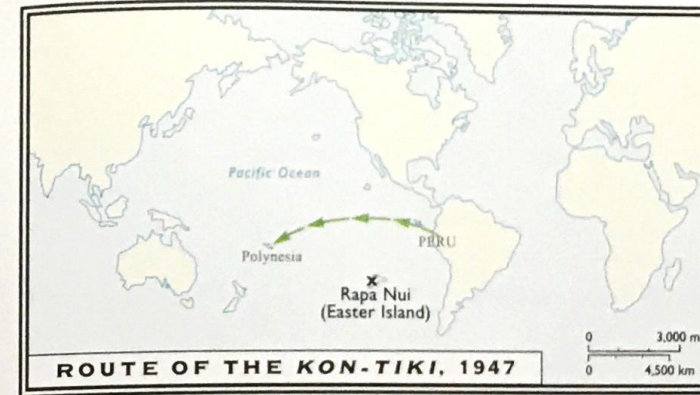
“Aft, in a little hole by the steering block, lived a crab which was called Johannes and was quite tame. . . . Johannes sat. . . in his doorway with his eyes wide open, waiting for the change of watch. Every man who came on watch had a scrap of biscuit or a bit of fish for Johannes, and we only needed to stoop down over the hole for him to come right out on his doorstep and stretch out his hands. He took the scraps out of our fingers with his claws and ran back into the hole, where he sat down in the doorway and munched like a schoolboy cramming his food in his mouth.”

sails—and no canoes at all. These small rafts were hardly designed for moving groups of people thousands of miles. Where would you put the supplies for a three- or four-month journey? And what about stowing away livestock and plants with which to begin a new life?

Heyerdahl could have argued that supplies weren't a problem. On their journey rain filled the water cans and the fish were plentiful—so plentiful that flying fish shot out of the water and flopped onto the deck. One landed right in the cook's frying pan! But Heyerdahl had no room on the *Kon-Tiki* for things to plant once they landed. The raft had no room for the things migrating people would bring with them from home—animals to breed, crops to plant.

Wherever they came from, the first explorers who settled the islands of Polynesia brought plants and animals. Thor Heyerdahl tried to support his theory of westward migration through the plants he found on the islands. He thought that the South Americans had brought the sweet potato, chili peppers, and cotton. He was sure that the bullrush plant he found growing in the crater swamps of Polynesia was the same as the bullrush that grew in Peru. Later, botanists discovered that some of the plants that Heyerdahl claimed the first settlers carried from South America had actually been growing on the islands thousands of years before any people arrived. Plants move from island to island in ways you might never suspect. Some seeds float their way to a new home. Others arrive by wind. Ferns spread their lightweight spores on the breeze. Some seeds travel via air-transport on birds' feet, in their feathers, or all wrapped up in a neat fertilized pellet—splat!

On the raft, Heyerdahl and his mates ran into foul weather: “the wind shook the bamboo wall and whistled and howled in all the rigging. . . .” Nights were the worst: “As we lay there, each man on his straw mattress, we could feel the reed matting under us heaving in time with the wooden logs.” It felt like they were “lying on the back of a large breathing animal.” One night Heyerdahl woke up feeling uneasy. Something about the movement of the waves had changed. Within moments the raft shattered on a coral

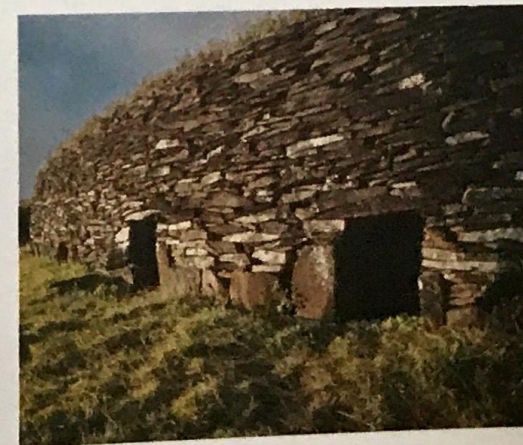


While the Kon-Tiki sailed in the direction of these arrows from east to west, we now know that Polynesia was settled by people who journeyed across the Pacific from west to east.

reef. Thor Heyerdahl and his crew had made it to Polynesia on a balsa-wood raft.

Adventurers like Thor Heyerdahl don't sit still easily. The saltwater had probably not thoroughly dried on his skin before he set his sights for the most remote island of Polynesia—the island known to Polynesians as Te-Pito-o-te-Henua, which means “Navel of the World.” The first European to set foot on the island landed on Easter Sunday in 1722 and named it Easter Island. The people who live there today call it Rapa Nui. Heyerdahl was convinced that Rapa Nui was first settled by Peruvians, not by island-hopping Polynesians. He'd proved that it was possible that they *could* have made the journey. Could he prove that they *did*?

As on most Polynesian islands, the majority of Rapa Nui's settlements were near the coast. Heyerdahl and other archaeologists studying foundations and the debris people had left behind determined that the houses were grouped in twos and threes alongside stone chicken houses and stone garden enclosures. Some people chose to live



44 Stone house, Easter Island, Chile, 600–400 years ago

BREADCRUMBS

Plants aren't the only thing to leave a trail of evidence that allows scientists to follow the movement of people through Polynesia. They can observe the appearance of artifacts, such as the pottery that settlers bring with them when they move from place to place. One of the most recent trails of evidence scientists are following is human DNA. The DNA trail suggests a fairly recent eastward migration, perhaps stemming from Taiwan.

“ Stone fishhook, Easter Island, Chile, date unknown



farther away from the coast, where the soil was better and salt spray didn't kill the plants. Some houses were clustered around religious sites where ceremonies were performed on altarlike platforms. The curved houses nearest the sacred places were built with care for the priests and chiefs who held positions of respect among the people of the island. The best houses were built on cut-stone foundations. They looked like beehives with plant material tightly woven into the arched pole frame. To keep the cold and rain out, entrances were tiny. People had to crawl through the doorways. Most people lived in huge sleeping shelters built to hold as many as 200 people.

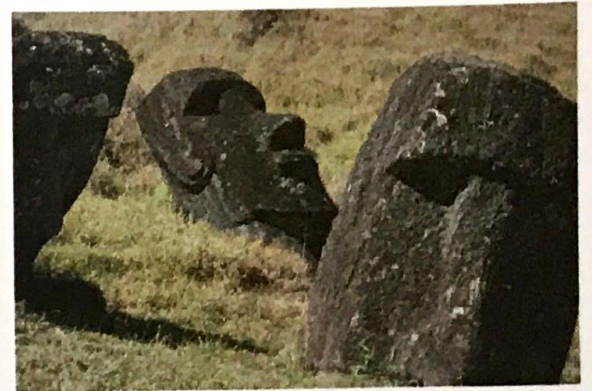
Each part of the island had its own specialty. If you lived on volcanic rock, you would work the obsidian. If you lived near a forest, you would cut down trees. If you lived on good soil, you might grow bananas. The groups traded with one another.

Heyerdahl needed some concrete evidence to identify the first people to arrive at Rapa Nui as Peruvians. He looked for things that were uncommon in other parts of Polynesia but could be found in Peru. He found bits and pieces, here and there—stone pillows, stone fishhooks, and bone needles. But nothing pointed to one group of people at one point in time from Peru who might have brought these items to Rapa Nui. Even the techniques that the natives in Rapa Nui used to make tools were not at all like the methods the Peruvians used. Heyerdahl should have listened to the scholar who told him that a scientist's job is not to try and force the evidence to prove a point. But Heyerdahl did not listen. Desperate for any solid proof, Heyerdahl turned his attention to the statues on Rapa Nui. Weren't they similar to statues in South America?

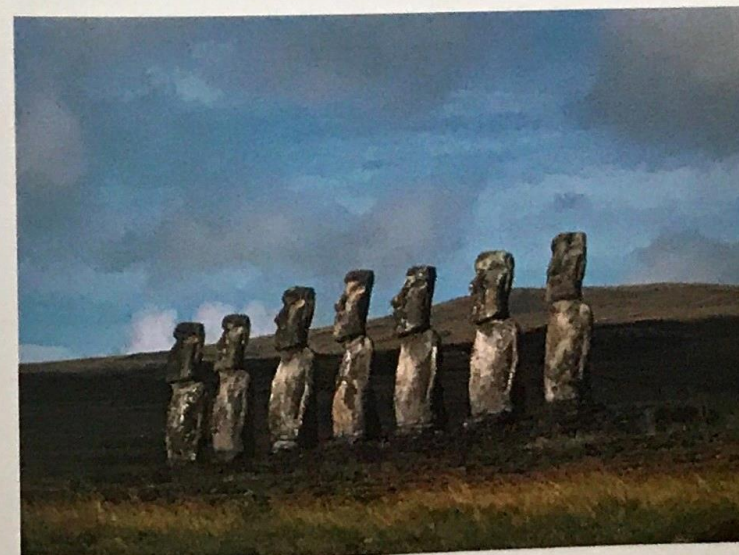
Like everyone who has seen them, Heyerdahl was awed by the statues on Rapa Nui. The Easter Island Heads, or

moai, as they are known to the islanders, are each bigger and heavier than a school bus full of rocks tipped up on its end. Even the toppled statues appeared huge to Heyerdahl: “it is the head of a fallen giant... you can walk about freely on his chest and stomach, or stretch yourself out on his nose, which often is as long as an ordinary bed.”

While peering into the crater where most of the statues had been quarried, Heyerdahl wondered how nearly a thousand years ago the workers had moved those massive stones out of the quarry and up onto the platforms where they stood all around the island. Legend says the statues walked. From the crater rim Heyerdahl studied the hollows in the steep clifflike walls where statues had been cut out long ago. The volcanic rock had a hard crust, but once the ancient carvers broke through, the stone inside was soft as chalk. One huge block remained still attached to the rock. The carvers must have given up when they realized that it was just too massive to move. At 65 feet, it would weigh at least 270 tons. Below Heyerdahl, hundreds of statues littered the crater floor in all stages of completion—some standing up,



“ Statues, Easter Island, Chile, 1,000–500 years ago



These stone statues of ancient leaders, or moai, on Easter Island have turned their backs to the sea for 550 years. They provided spiritual protection and reassurance to the people of the island.

MY KINGDOM FOR A TREE

There was no lack of rock for carving the statues, but moving them required timber and rope—lots of it. As the demand for statues grew, so did the demand on the island's forests. There are just so many trees on an island. When the trees were gone, islanders could no longer build canoes. Without canoes, the islanders became trapped—stranded in the middle of the Pacific. They could no longer fish offshore. The communities that logged no longer had anything to trade, nor did the offshore fisherman. As often happens, inequalities led to conflict.

others on their backs, many broken. No two looked exactly the same.

Heyerdahl learned from island legends and interviews with islanders that the carvers had been respected artists. The community paid them for their skills by taking care of them. They were relieved from day-to-day survival tasks and were free to pursue their art. Chiefs commissioned statues while they were living so that they would be remembered after they died. Competition was heated among the chiefs for who ranked highest and who deserved the biggest and the best statue. The carvers raced to make hundreds of statues.

It wasn't until after the person died that his statue was moved onto a platform, with the statue's back to the sea. Once the statue was raised, carvers hollowed out the eye sockets. Like a giant "on" switch, adding eyeballs activated the statue's *mana*, or spiritual power. But how did they move the statues out of the crater and onto the platforms? Heyerdahl had found a new obsession. Using round logs and lots of rope, he experimented. Taking his cue from the legends that said the statues "walked," Heyerdahl stood the statues upright and wiggled them forward by rocking them from side to side. The towering heads staggered forward. It was more of a waddle than a walk, but enough to convince Heyerdahl where the walking stories had started.

Heyerdahl hoped to prove that the statues were similar to statues in South America, but it was clear that the *moai* of Easter Island were more like statues throughout Polynesia, all springing from a shared belief system and shared customs. In the end the Easter Island Heads turned their backs on Heyerdahl's theory just as they turned their backs on the sea. Thor Heyerdahl was wrong about the direction from which the first settlers of the islands of the Pacific had come. He never did prove his theory. But science advanced with his courageous voyage on the *Kon-Tiki*—just not in the "direction" that he expected.